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THE SCHOOL JOURNAL

A Weekly Journal of Education.

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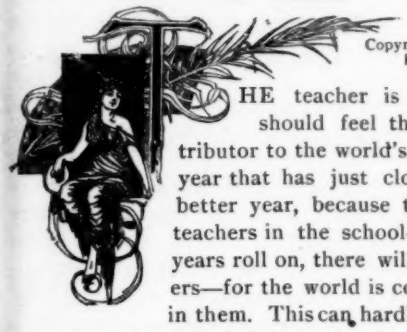
The business department of THE JOURNAL is on page 22.



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THE teacher is a person who should feel that he is a contributor to the world's welfare. The year that has just closed has been a better year, because there have been teachers in the school-houses; as the years roll on, there will be more teachers—for the world is coming to believe in them. This can hardly be said of any other class of people (ministers are included under the general term teacher). Once the teacher was on a par with the ordinary laborer and collected fees for his work; now it is the conclusion of the world that the community can afford to tax itself to employ the teacher.

The teacher need not shrink into the smallest space possible in these years; he occupies an honorable position; he lives by being of service to others—by benefiting them. Let him walk proudly among the grand things the busy brain of man has invented and say, "All these are products of the school."

The school is the source of our greatness; as the school so the nation. Out of it come influences that are felt over the world. The work the teacher does is far-reaching; it will extend far beyond his time. But it is the beneficence of the act that should stand out prominently; the teacher may feel as he enters the school-room each morning, "I am to be of benefit to those children."

During the year 1892, THE SCHOOL JOURNAL will neglect no means to bear high the standard of education. The editors have arranged to have the best men and women in the field assist in the great work they have planned out. The supreme effort will be, to be of the highest service possible to those who desire to teach young children in accordance with the plan on which the Creator built them.

THE SCHOOL JOURNAL was begun in 1870, and enters now on its 22d year. The effort has not been, since the present publishers have issued it, to make a paper, but to exhibit educational thought, plans, efforts, ideas, progress, and movements; to point out better means to attain higher results; to exhibit education in its scientific aspects; to ally the teacher with the beneficent, the philanthropic of all the ages; to relate him to his Creator whom he represents on earth.

These points make the growing city of Chicago specially interesting at this time:

The question of sewing in the public schools came before the board of education; it was thought there was little interest, and that a class on Saturdays would answer for all desiring instruction. When the teachers handed in the names of pupils who wanted to come on Saturday to learn sewing, they footed up 30,000. Hence another plan was devised—to make it a *regular study* and this has been done.

The city of Chicago has done one act that should be copied by every city in the United States: Certificates are to be given to teachers of reputation without an examination. It is a standing disgrace upon education that every one must be examined who applies for a position. Stanley Hall, William T. Harris, and A. S. Draper would be required "to bound New York;" "give the rule for dividing fractions," if they applied for a principalship of a grammar school in New York, Philadelphia, Baltimore, etc.

The Chicago papers have contained lengthy notices of the death of Mrs. Ellen Mitchell, the first woman put on the board of education (Miss Burt was the second); her beneficent influence in educational, charitable, and philanthropic directions, has given her a high place among the unselfish workers in the city.

Congress will begin business in earnest this month. Many matters of great importance will come before the session. One of the principal subjects to be discussed is the reduction of the postage. It used to cost twenty-five cents to send a letter, but the great cry of this generation is "More light!" and hence the need of even cheaper means of spreading intelligence than we have now. There is a call also for the federal legislature to deal with the Louisiana lottery, a hydra with which the state seems unable to cope. A large portion of the session will doubtless be devoted to the discussion of the silver question, and it is likely that a bill of some kind will be passed. So far as the tariff is concerned, the chief effort will be expended in obtaining free raw materials, such as iron, wool, and a few other articles, in order to help home manufactures. The W. C. T. U. have a petition with one million names, asking for national legislation to stay the liquor traffic. These are important questions which all who wish to read their newspapers profitably should study.

There is no doubt that the public are more wide awake to the subject of education than formerly. Once it was enough for the teacher to keep good order; to do this as it was done became a test of power. He must keep 40, 50, 60, or 100 active beings quiet for ninety minutes at a time; busy them on matters in which they took no interest!

Now it is said by eminent persons that to turn a boy out able to read in the fourth reader is of no benefit to him or to society—that is, if this be all. Such a statement would once have been considered evidence of insanity. What would the man have? Certainly we are aiming higher than we once aimed.

The questions proposed to candidates now vary from what was once considered the correct thing: "Can you prove addition by casting out the nines?" "What is

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the difference between rule of three direct and rule of three inverse?" These and many more are replaced by such as "In subtracting 27 from 63 how would you explain the reason of each step?" "Give one rule that should be assumed by all teachers in preparing questions?" "Give one rule for criticising pupils in class-work." "How does education diminish disease, ignorance, and vice?" The idea is broadening that the teacher should know enough arithmetic, etc.; that he need hardly to be examined on these, but upon his ways of applying them, his ways of arousing interest, his ways of bringing the proper subjects of thought before the child, his ways of bringing his own spiritual influence to bear on the soul of another. A Western superintendent says: "I had a bright girl from one of your Eastern colleges before me lately and only asked her questions in methods and pedagogics. I never saw one so surprised." This will become more common.

The success of many of the popular methods in the schools of to-day, is owing solely to the fact that they are based on pedagogical principles. For instance, the belief that pupils should reproduce all instruction in their own language has become generally accepted as a true method in teaching. Why? Because the thought has not been grasped till the pupil has clothed it in a language of his own. The words are probably inferior but they are his own and the verbal evidence that the thought has been assimilated. As has been observed, "The utterance of the thought in the language of the pupil is an intellectual birth, and such a process appears to be requisite before the idea which it embodies can take its proper place in the intelligence and the memory. A man is often compelled to lecture in order to give light and life to his own creations."

If teachers understood that processes like these have become a permanent success in the school-room because they illustrate the natural way for the mind to work, there would result an intelligent enjoyment in watching and working with the pupil, that is not apparent now.

The earnest plea of the true educators that the work of the school-room must aim at character building has not met with favor all around. But the Catholics agree to this, placing upon it, very possibly, an interpretation of their own. The bishop of Peoria, Illinois, exclaims: "These ignorant masses, who, in the common schools, have been through the fourth reader, know nothing, not even their own ignorance." This may startle many a young man who complacently brings forward his fourth reader class and asks the visitor to note how glibly they can repeat the words; he may possibly ask himself the question, "What lack I yet?" The Catholics demand more than a knowledge of the school studies, from a religious standpoint. The thoughtful Protestant demands more, from an educational standpoint. Both demands will press the teacher to a higher position, because he must lift the pupil to higher levels of thought.

A summary of the leading events of the year 1891—a year notable in many respects—will be found in another part of the paper. This carefully prepared record gives the political, commercial, and other movements in all parts of the world.

We have gone around the sun again, but are in an entirely new place in space; the days begin to lengthen; we can see in imagination the spring come in, after days of storm. We can turn our thoughts to the southern hemisphere and at this very moment walk amid odorous hay fields, and see the laborers in them wipe the sweat from their foreheads. We can in a thought's space wander in the snowy spaces in the Arctic circle where there is no sign of life, happening now and then upon hillocks of snow wherein the Esquimaux makes his home; or, at once we may travel over deserts on the camel's back with our faces blistering in the intense heat.

This power to visit in imagination other portions of the world's surface than the spot we occupy is the gift of the Creator; but the power to know what is there, the power rightly to people those unvisited spaces is the result of education. Thus the teacher ministers to the interior life of the race. Let the teacher go to his school-room, therefore, conscious that he is to minister to the happiness of the generations; that he is able to enable them to live largely, richly, bounteously.

The teacher cannot too often impress on the school that the road to prosperity lies through education. (By the way, there is a grand field here for a man to write a book like Pilgrim's Progress, portraying the Student's Progress—only not coarsely, making out that he becomes rich!) Somehow the teacher must impress upon the pupil that reading of the right kind, study, observing the world around him, belonging to lyceums, going to church and Sunday-school, are movements in the line of progress that will surely, surely bring one into circumstances of happiness and enjoyment.

The teacher should accumulate materials to cause this deep impression and use them judiciously but steadily. The story of five messenger boys who began work in a dingy office in 1848, has been lately told in the papers; one of these was Andrew Carnegie who has just given a million of dollars to build a splendid music hall in New York city, as well as a large sum of money for a library in Pittsburg. All of these men have become wealthy and prosperous. How did it come about? Certainly the ordinary messenger boy is usually a smoker of cigarettes, often lazy and saucy. This sentence tells the story: "They spent their spare time in learning useful lessons." Busy Andrew went to work to learn how to telegraph, that is to do something better than he was then doing. Teachers, inspire your pupils to desire to go up.

In a late number of THE JOURNAL, reference was made to a pedagogical error in the employment of nature studies, by many teachers, solely for language lessons, pointed out by Mr. Clapp, master of the Geo. Putnam school, of Boston. (See Page 438.) This is referred to here to say that pedagogical errors abound; yes, abound in our school-rooms.

For example, a teacher had studied the Grube system with care at a summer school; in her class she gave a lesson on the number *four*, following Grube thoughtfully. Then she proposed a review of the lesson on *four*; and without turning to the pure number she proceeded still to use objects, and objects only—more objects, and different objects.

Drexel Institute.

By the generesity of Anthony J. Drexel, a magnificent institute has been established in Philadelphia, and dedicated to the enlargement of the scope of education in art, science, and industry. The founder states the scope and object of the institute to be "the extension and improvement of industrial education as a means of opening better and wider avenues ofemployment to young men and women." Drexel Institute is located at Thirty-second and Chestnut streets, West Philadelphia. The building is in the style of the classic Renaissance, constructed of buff brick with terra cotta ornamentation, the base being of rock-faced granite. A richly decorated portal in Chestnut street, 26 feet wide and 35 feet high, forms the principal entrance. This admits to a portico of colored marbles and paneled oak ceiling, which in turn opens into a spacious hall, the ceiling of which is supported by pillars of red Georgian marble. Beyond is a great central court, 65 feet square and the entire height of the building, and covered with a ceiling, the center of which is of stained glass. A double marble stairway leads to the upper floors and decends to the auditorium and the workshops in the basement. Broad gallaries extend around the court on the second and third floors. These are surpported and enclosed by arcades. From these galleries entrance is afforded to the class-rooms, laboratories, and studios, all of which are lighted from without. The portico, entrance hall, and central court are wainscoted in marble; the arcades are faced with enameled bricks, and the dividing cornices are of terra cotta. The woodwork throughout the building is of polished oak.

The offices, library, and reading room are on the first floor. There is a lecture room, with a seating capacity for 250 students. The auditorium is capable of seating 1,500 persons; in this a grand organ is placed. The class-rooms are commodious, averaging from 43 by 34 to 56 by 44 feet. There are three physical laboratories on the second floor, the chemical laboratory being on the third floor, and the gymnasium on the fourth floor. The photographic studios and laboratory are in the rear on the fourth floor. Cloakrooms and lavatories, finished in marble and oak, are placed in all four stories of the building. The shops for mechanical work are in the basement, as are also the steam and electric plants.

DREXEL INSTITUTE OF ART, SCIENCE, AND INDUSTRY.

The work of the institute will be arranged under the following general divisions: 1, Art Department; 2, Scientific Department; 3. Department of Mechanic Arts; 4, Department of Domestic Economy; 5, Technical Department; 6, Business Department; 7, Department of Physical Training; 8, Normal Department for the Training of Teachers; 9, Department of Lectures and Evening Classes; 10, Library and Reading Room; 11, Museum.

There are to be lectures, evening classes, and ample libraries. While there is a large endowment giving $50,000 per year, moderate fees will be needed to maintain the institute. There will be a large number of free scholarships. James McAlister is the president.

The School Use of the Stereopticon.

By M. H. Paddock, Jersey City High School.

No other apparatus for school-room use has gained so rapidly in popular favor of late as the stereopticon. This may be attributed to several causes:

1st. The cheap and safe manufacture of gas, its compression into tanks, and easy shipment to schools.

2d. Improvements in photography by which excellent slides on all subjects from all parts of the world are within the means of all.

3d. Improvements in the lantern.

4th. An appreciation of the true value of visually illustrated discourses.

THE FIELD FOR THE LANTERN.

The subjects which are readily illustrated by this instrument in the school-room are as follows:

Physical geography, or if we include this branch in its reach through the past—geology. This alone is worth all the trouble and expenditure involved in its use. What more important theme than the study of the earth which constitutes our home and contains all from which we may draw for our comfort or prosperity?

By the aid of photography, all earth's features are faithfully transferred to glass. By the optical lantern these are projected upon the screen and we see nature accurately portrayed to us just as the eye of the photographer beheld the scene a thousand miles away.

This is truly a wonderful art—Alpine glaciers, Andean peaks, Niagara's waters, the smoking Vesuvius, storm-beaten Cape Wrath, and the midnight sun of Norway, upon the canvas before us as if we stood in their very presence. To such an extent has photography of picturesque nature been carried that slides of whatever is wonderful to behold may be obtained at remarkably low cost.

Besides that phase of geology which touches upon inanimate nature, we have of course the study of the animal and vegetable kingdom, and especially of man and his works. These are represented by the stereopticon as no other device can display them.

History is admirably supplemented by this apparatus. The historical remains of ancient Egypt, Assyria, Greece, and Rome can scarcely be adequately set forth except by the stereopticon.

Travel may be called a kind of contemporaneous history and furnishes a large field for illustrated discourses.

Astronomy is rendered doubly attractive by the stereopticon; photographic representations of lunar surfaces, and solar appearances are especially fine, projected upon the screen.

In physics and chemistry, the apparatus naturally pertaining to those subjects is preferable and sufficient. In optics, however, the lantern, where the beam of the sun cannot be relied upon is a safe substitute. In microscopic projection and in polarized light, it is used with good effect, yet the apparatus at present is rather too expensive, and the results not sufficiently satisfactory for us to expect the lantern to supersede the ordinary microscope and polariscope in school-room use. But in lectures with these subjects the lantern is invaluable.

Finally, illustrative cuts from books of reference not of easy access to the class as a whole, may be thrown upon the screen in class-room, thus considerably extending the pupil's knowledge of the subject.

HOW TO ACQUIRE A LANTERN OUTFIT.

It seems almost unnecessary to remark upon this heading, yet a suggestion may not be amiss.

I would try to get an appropriation, if only a small one, to start on. If I could not get sufficient through the regular channels, I would give an entertainment with this object in view. This may include, with pupils' efforts, a stereopticon exhibition in your line.

You can easily hire lantern and slides, buy gas and printed lecture, and engage an operator at total cost not to exceed fifteen dollars. Many entertaining lectures are to be purchased with accompanying slides. Twenty-five dollars would buy a lecture and fifty or sixty slides. In general you would prefer to select your slides to suit your own treatment of topics. A lecture and slides can be hired for five per cent. of their value. With your expert operator, engaged at a cost of $5, you can yourself read, or deliver the lectures off hand.

A hundred dollars, raised in some such way would be a very fair start. Put half into lantern, the balance into slides, curtain, etc. With oil, a less amount will do. Use the slides already obtained to raise money for more. Thus with lantern and assistance of pupils a considerable stock of slides may be acquired.

The advantage of a large stock of slides is, that with occasionally a few new ones you can vary your grouping of them producing totally different discoveries. Schools having lantern departments should exchange slides, as clergymen occasionally exchange pulpits.

Fully illustrated catalogues explaining the apparatus to be used can be obtained by addressing our advertisers.

Boston.

The Schoolmasters' Club.

(Special Correspondence.)

The dignified members of the Schoolmasters' Club discussed at its last regular dinner at the Brunswick, the question "How Far Free (that is, Public) Education Should be Carried." The principal speakers were the scholarly Prof. Ryder, of Andover seminary; the learned General Walker, president of Massachusetts Institute of Technology; Supt. Ray Greene Huling, of New Bedford, and Alderman Thomas F. Keenan. The widest diversity of opinion marked each speaker's utterances. Prof. Ryder would have professional schools, in particular theological schools, entirely supported by the state, the maintenance and sustenance of the students being provided for from the public funds and the student entirely free from all thought of the world, money-getting, or spending. He would have them in the world but not of it. He pictured the life of such a student and spoke in glowing terms of the beneficent results that would follow if such a plan were put in execution.

Gen. Walker attacked Prof. Ryder's position and maintained that the public funds should never be used for schools that were professional. Indeed his remarks gave his listeners the impression that he would limit the expenditures of public funds in school matters to schools below the high school grade; in passing he gave a sharp rap at the high school, declaring that its results hardly met the expenditure now so lavishly given it. He cited the case of a town in Massachusetts where one-half of the entire sum raised for school purposes was expended on the high school, and declared that the graduates of that particular high school who attended the institution over which he presided were inferior in preparation to those that came from any other school. This statement called forth, as might be expected, some criticism from the press. The question now is: "Which town has this school?"

Mr. Huling courageously took up the challenge thrown down by Pres. Walker, and made a stirring plea for the high schools. Alderman Keenan now advocated his pet measure which he has for several years been urging the school board to smile upon, to wit.: a city university. He would have established in Boston a college somewhat, I take it, like the N. Y. City college, where young men could pursue special courses in the profession at the taxpayers' expense. The alderman's plea for respectful consideration of his project (judging from the remarks of the other speakers and from the attitude of the club), found no responsive sympathy. The school board has several times cast out this scheme whenever brought before it. Boston will none of it. There are two colleges in the heart of Boston and two within the greater Boston, Harvard and Tufts. But these four do not appear sufficient for Mr. Keenan. The call for such a college as he plans out is not at all imperative; it springs from so unlooked for a quarter and with so little backing of men who think and dream of nothing but human welfare, that the continued presentation awakens no interest whatever; it has come to be regarded as a "scheme."

The question—"How far the public funds should be devoted to educational affairs" is a serious one. There can arise little question as to the desirability of the state making an occasional grant to needy institutions devoted to secondary education. This has often been done in Massachusetts. Pres. Walker's Institute of Technology has received aid from the state, and when it has been asked it has been given ungrudgingly. But aside from supporting normal schools, and giving an occasional grant to new and struggling institutions, the public funds should be kept in proper channels. The high school is the people's college. It is paid for gladly and proudly, and quiet resentment is given to any attack on it. But Boston draws the line at a city college. Scholarships abound at Harvard. There were never so many philanthropic men and women in Boston as to-day, and they demand nothing

more satisfying to their appetites than to discover and succor those struggling for mental development. I do not believe there is a boy in Boston to-day, who, desiring a course in a professional school, is unable to gratify this desire through lack of funds. If there be one such and he were to make his case known, his desire would no longer be a burden.

The School Room.

JANUARY 2.—LANGUAGE AND THINGS.
JANUARY 9.—EARTH AND SELF.
JANUARY 16.—NUMBER AND PEOPLE.
JANUARY 23.—DOING AND ETHICS.

Lessons on Stones. II.

By GUSTAV GUTTENBERG, Pittsburg, Pa.

What do you think is the most abundant mineral upon the surface of the earth? (Probably none of the pupils will guess it.)

I see few of you know that the substance I mean is a mineral, because usually it does not look like a stone. I shall give you a riddle about that mineral and I have no doubt that everyone will guess right who listens:

On me you can walk and ride,
Climb and drive and slip and slide;
In me you can swim and wallow,
Dive or sink and drown or swallow.
I can flow and leap and splatter
Rise and fly and fall and patter.
I am in you and around;
In the air and in the ground.
You can cut me, break me, spill me,
Throw me, pour me, but not kill me.
You can freeze me, you can boil me
And I clean you while you soil me.
You can send me skyward high,
What a curious stone am I!

Water a stone! a mineral! This sounds strange; yet if it were always as cold on our earth as it is in the severest winter days, would not all the water be like stone? would we not have to take the hammer or hatchet along to get a piece for our collection, just as we do now if we want to get a piece of granite or quartz?

Ice, indeed, looks very much like a clear piece of quartz; is it as hard as quartz?

Here is a dish full of pieces of ice; everyone can have a piece to find out how hard or soft it is. Is it harder than quartz? than marble? harder than your slate pencil? Can you scratch it with your knife? with the finger nail? What else can you tell me about the ice?

"It is clear." "It melts." "It is cold."

Why does it melt in your hand? Let us see how cold it is. We shall put the pieces that are left into this tumbler and place our thermometer in it. Some of you may come here to see what happens and to tell the class. How many degrees does the thermometer show now before I put it into the ice? "70 degrees." Write it on the board. (Some scholar announces from time to time the temperature which at last becomes stationary when 32 degrees are reached; here it stands until all the ice is melted, then it rises again; another piece of ice thrown into the tumbler brings the mercury back again to 32 degrees. The fact that the temperature of melting ice is 32 degrees and does not change until every particle of ice is melted, should be well impressed upon the pupils.)

Our mineral is now melted; is ice the only mineral that melts? We know that all the metals melt, but they need much more heat than ice; lead can be melted in a candle flame; tin and zinc are not hard to melt, but to melt iron needs a very high temperature.

Who can name a metal which we always see in a liquid (molten) condition? We have it here in the thermometer; *mercury or quicksilver* does not freeze or become solid until the temperature falls 72 degrees below the freezing point of water (—40° F.).

If the teacher has at her disposal a tin cup, an alcohol lamp, or a Bunsen burner and a thermometer, graduated to or above 212 degrees, she can show the interesting fact that the temperature of the water rises to 212 degrees before it begins to boil and then remains at that point until all has boiled away or been changed into steam.

Teacher and scholars can perform various other experiments; for instance: take a small vial, holding about ½ oz. of water; fill it and pour the water on a large piece of blotting paper. Another vial full pour into a shallow dish, another into a tumbler, and now fill the vial again and put it, the tumbler, and the dish, in some place where they will not be disturbed. The blotting paper will soon be dry; the water in the dish may disappear over night; that in the tumbler will last several days and that in the vial still longer.

What conclusions do you draw? "The water is drawn up." This is not bad, but it is misleading. The water evaporates; it changes to an invisible vapor and the greater the surface is upon which it is spread, the faster it evaporates.

Wet equally three pieces of blotting paper; hang one up in the warm room, one outside, where it is colder, one in a place where there is a draft; which will dry quickest?

Is evaporation more rapid in warm or in cold air? in dry air or in moist air? in still air or in a draft or wind? Does ice evaporate? Try it.

Performing these little experiments, observing results and drawing correct conclusions will help us to understand many phenomena in nature.

Rivers flow continually into lakes and oceans; why do the latter not run over?

Where do the clouds come from?

(The writer of these lines has asked many a class this question and many a time he received the startling answer: "The sun draws the water of the lakes and oceans up at certain times." When asked whence they had derived this knowledge, they answered that their teachers told them so. It is time that the ridiculous notions, still common among many people that "the sun draws up water" when the sun's rays happen to break through openings between the clouds, be corrected and the teachers ought not to allow such impressions to remain in the minds of the pupils.)

There is no rest for our mineral; down it comes in liquid form as gentle rain, or in solid form as hailstones, or as beautiful snow crystal it falls upon the mountains, in the valleys, on the roofs of houses, in the streets, into the ocean. Much of it is evaporated again, much sinks into the moss, refreshes the roots of the trees, filters through the soil, is greedily absorbed by the plants, but still a good deal finds its way to the rocky bottom, flows along in depressions, and issues as springs; the springs feed little lively streams; they unite to form creeks and rivers. These wind their useful courses down the gentle slopes of the continent to the great water basins, the lakes, and the oceans; but all along this course and over the wide expanse of the oceans and in the forests and fields of the continents evaporation is constantly going on, and invisible to the eye are immense quantities of water constantly rising up to the sky, to be condensed to clouds and rain or snow again by the cold currents; and these currents often carry north the warm moisture from the tropic regions and south the cool vapors from the northern climates. Thus our mineral is ever changing its form, ever shifting, ever anew supplying us with life and power, and helping to lessen the rigor of the winters and the burning heat of the summers. It is indeed the most wonderful and most useful of all minerals.

Still we have not by any means learned all we can about it and shall return to it at a future lesson.

Opinions from the Desks.

By LIZZIE H. HAZELTINE, Union Springs, N. Y.

Some one said, "The power of the teacher is measured by his power to teach the art of thinking." This statement at once raises in the teacher's mind the query. "How can I accomplish this end?"

Horace Greeley wisely says, "The only way to do a thing is to do it." Set the pupils to thinking, and keep them at it; in this way the art of thinking will be acquired. Yes, but this answer merely shifts the difficulty; it does not remove it. Pupils for the most part do not care to think; they want a machine rule, or they like to make use of the teacher's brain instead of their own.

"How shall we know," asked one of my pupils, "whether these clauses are subjects or objects?" "By thinking," was the reply. "But perhaps we shall not want to wait to think," was the objection—honest at least, and well expressing the feeling of many a learner.

To rouse these inert brains to self-activity is our task; ingenuity and variety are needed here. I have sometimes found it helpful to ask a question, requiring a written response from each. Then the answers are collected and read; thus each pupil first does some original thinking, and then gets the benefit of the collective thinking of the school; often, too, the teacher gets a helpful insight into the pupil's way of looking at things.

Here are some answers to the question: What is your favorite study, and why?

"I like drawing best, because I like to see what I can do."

"Latin I like because it requires a good deal of thinking, and it is interesting to look it out."

"I like physics best because there is a great deal of practical good in it."

"History, because I like historic books, and it is more like a story than the others; I like them all though."

"Arithmetic I like best because it is best."

"My favorite study is arithmetic, and I don't know why."

"I like drawing the best; it requires less study."

Another time we had been reading on Fridays Rip Van Wrinkle and Macaulay's Horatius. The pupils were asked to state their preference and the reason for it. Here are a few of their answers:

"Horatius is the one that I liked the best. Rip was lazy, while Horatius was a brave man."

"Horatius is the best, and I like it best, for it showed some nobility.

"If all men would take pattern by Horatius there would be fewer cowards in the world."

"I think I like Rip Van Winkle best. One reason is because the scene is in this country, not very far away."

I recommend this plan to other teachers, as one means by which thinking on the part of the pupil may be secured.

A Third Reader Lesson.

By J. M. GREENWOOD, Supt. of Schools, Kansas City, Mo.

I have selected a lesson, "The Monkey and the Cats," as one familiar to many teachers, and published in several different Third Readers. It represents three different voices with corresponding variations, besides the conversational style so well adapted to didactic discourse.

PREPARATION BY THE TEACHER.

1. The teacher studies the lesson critically to ascertain the thought elements it contains, and how they should be expressed in utterance and action.

2. She weighs each sentence and decides the form, quality, force, stress, pitch, and movement of voice necessary for its appropriate utterance. She also must determine the accidents of vocal expression, such as articulation, inflection, and emphasis to be used. Mentally she conceives the piece first *statically*—or at best—simply as a literary composition, and secondly, *dynamically* or in motion as it would appear as a passing event in action.

3. The mere descriptive portions are thus firmly fixed in the mind; the monkey as the judge in solemn state, balancing the claims of the contestants, and their objections, too, must all be duly conceived by the reader.

4. The lesson is studied and thought over till it stands in the teacher's imagination as the most real occurrence in the world. A lesson is never understood till the reader feels it and can act it as a reality. Thus the lesson becomes a part of the teacher's mental furniture, a part and parcel of herself.

5. The teacher next decides how this lesson can be used so as to develop the powers of utterance and action in her class, or in particular members of her class. She works according to her ideals. Should they be very imperfect, her pupils will read very poorly. High ideals are the only good ones in teaching, and these the faithful, progressive teacher always strives to realize.

Her ideal of how each pupil should read may be comprised under the following subdivisions:

1. *To pronounce distinctly and properly all the words so as to be heard.*
2. *To emphasize all words so as to be understood in all parts of the room.*
3. *To express the thoughts so as to be felt.*
4. *To contrast and separate ideas to attain clearness in expressing thought.*

THE PUPIL'S PREPARATION.

1. The teacher will pick out all new and difficult words which are not in the spelling exercise, and write them on the blackboard, and mark them diacritically. If she is in doubt about the marking of any word, consult the dictionary. These words are for the class to practice on from day to day. Words are learned through the ear and eye.

2. The pupils are to study the lesson first to get the sense out of the words and sentences. The teacher needs to show them how to study and how to prepare a recitation.

3. To express the meaning as each understands it. To put this in a clearer light, I will take the dullest boy, "Deuteronomy Dull," and ask him to read. He takes position. I observe that he is pigeon-toed. Kindly I show him how to place his feet. After a few efforts he gets his toes turned outward at the proper angle. I now see that he is loose-jointed, knock-kneed, and bow-legged. Without calling attention to these physical defects, I manage to straighten up his feet and legs into a respectable position. Next, I attend to his head, shoulders, neck, breast, back, arms, and hands. Physically I am trying to get him to stand flat-footed and straight up. His vocal organs must have full and easy play. At no time should his feelings ever be wounded. Putting him into shape to be somebody and to do something, unconsciously helps all the other members of the class.

The next step is to show him how to take, open, and hold his book the proper distance from his eyes. This is an important matter, and is too often neglected.

Everything is ready now for Deuteronomy to read. He reads the first paragraph in a low, faltering voice. To get him to read louder, I go to the most distant corner of the room apparently to keep the studying class at work, and I say: "Deuteronomy, please try it again, a little louder." He reads louder, but in a harsh high tone. Quickly, I analyze the tone; in fact, I know it as soon as I hear it. He used the explosive instead of the expulsive form of voice; the quality was guttural instead of the pure tone; the energetic force instead of the moderate; the radical stress instead of the medium; high pitch instead of middle; and rapid movement instead of moderate. I know precisely what is the matter with his reading, and I go to work to improve it in every particular wherever there is a defect, and I practice him till he reads the paragraph tolerably well. Then I praise him a little for what he did.

Suppose Deuteronomy is to read the fourth paragraph. It runs thus: "'Let me see,' said the judge, with a sly look; 'this piece weighs more than the other;' and he bit off a large mouthful."

This is a fine paragraph for Deuteronomy to practice on. He reads: "*Let me see,*" in the solemn measured tones of a cool sagacious judge, if he has been properly taught. Next, he gets in the "sly look" of the judge and monkey blended; then he weighs or balances the two pieces, and with great gravity says: "This piece weighs more than the other," and then he proceeds to bite off a large mouthful.

Space will not permit me to go through this selection from the beginning to the end. However, I will mention a few suggestions.

1. Reading is the most difficult branch to teach in the entire course of study.

2. The teacher must know what good reading is, and whenever she hears one read, she can tell instantly if there be any defects.

3. She should know what the defects are, and how to correct them.

4. She should always keep up the interest in the lesson to a white heat.

5. In assigning a new lesson she should decide beforehand how the lesson shall be used to improve the children's reading, whether in articulation, expression, or getting the thought silently.

6. As a language drill, the changing or recasting the sentences, the substituting other words, and other devices which will suggest themselves are invaluable.

7. *Caution.* Avoid wasting time, and not giving all the pupils a chance to read during each recitation.

Experiments.

(For pupils of the age of ten years and upward there should be daily experiments. These experiments should be simple, and illustrate some law or principle. There will be need of apparatus; this may be expensive or cheap, complicated or simple. It is best to aim at only the cheap and simple.)

The teacher should have a case of drawers made by pupils in which to keep materials and tools; this can be nailed to the wall. It is a bad plan to occupy the desk with tools and apparatus. One drawer should have files, plyers, awls, etc.; another corks, rubber-tubing, etc.; another bottles, etc. A plain table will be needed; water and acids are likely to be spilled.

Experiments should be planned for beforehand, so that there will be no failure; then a course should be laid out—hap-hazard experiments are not instructive. The object should be to open to the pupil the great fact that we are surrounded by forces and must learn to understand and direct them.

A Balloon.—The ordinary toy balloon may be used; if this is not to be had one can be made of tissue paper. Use a light wire ring to hold the mouth open; to this hang a sponge on a fine wire, and put some alcohol on the sponge and set fire to it with a match. The heated air will cause the balloon to rise. (All this can be done by the pupils if they are properly encouraged.) Now comes the teacher's part, which is to set the pupils to thinking of the causes of the effects witnessed. He proposes questions.

What is this that surrounds us?

In what condition or state is it? How many states has matter? What do we mean by matter? What changes matter from a solid to a liquid state? What from a liquid to a gaseous state?

Give examples of each state. What is in the balloon?

Why does it rise?

(The air in the balloon is lighter bulk for bulk than the air outside; it is pressed upon by the surrounding air; it cannot stand the pressure and goes up. These points should be elicited by questions.)

Here is a dish of water. I push this block of wood to the bottom and let go, and it rises. Why does it rise?

Is it the same reason that causes the balloon to rise? Suppose the balloon was out of doors, where would it stop?

How could I make it go still farther up?

(By making it, bulk for bulk, lighter than the surrounding air.)

I have filled it with hot air; what else can I fill it with?

Why does the balloon descend? What caused the air to become lighter?

What has become of the heat?

How was the air made lighter by the heat?

Do you know of any common apparatus in which air is made to ascend by heat? (The stove; the fire-place.)

What is done in the stove when the fire burns?

How is it with a lamp? Here is a lamp. Show me by bits of paper that the air goes up the chimney.

What do you call the effort of the air to get into the stove?

What is the object of closing the door at the bottom of the stove? Why does opening the door stop the draught? When you sit near an open fire your back feels cold. Why is that? Have we any way of telling the temperature of air?

Does it remain the same all day?

What is wind? What causes wind? When you said your back felt cold as you sat by the fire was not that a small kind of wind?

What caused it?

Is that the cause of all winds?

What effect has heat on air? (It expands it.) Here is a small bottle, I put a cork in it and heat it over the lamp; you notice it pushes out the cork. Why is that?

Has the same cause been at work as on the air in the balloon?

Here is a fruit jar. I put a block of wood in the basin of water and on it stick some pieces of paper with a pin and set fire to them and now I put over it the fruit jar.

What do you see? (Bubbles escape.)

What is inside of those bubbles?

Why does the air come out? As it has stopped burning I will cool the jar by putting water on it. Tell me what you see. (The water rises into the jar.)

Why does it rise?

Ten Lessons in Manual Training.

By GEO. B. KILBON, Principal of Manual Training School, Springfield, Mass.

LESSON IV. USE OF TRY-SQUARE AND BEVEL.

The gauge is used, as was described in Lesson III., to make lines parallel to the *edge* of a board. The try-square is used to guide a pencil or knife in making lines at right angles to the *edge*. It consists of two parts, the beam and the blade, as in Fig. 1.

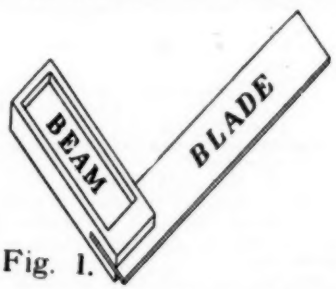


Fig. 1.

RROBLEM I. USE OF TRY-SQUARE WITH PENCIL.

Take a board 8 in. × 2 in. × $\frac{5}{16}$ in. Lay the rule on it as in Fig. 2, and with a fine pencil point, operating as in the measurement lesson, place points on the wood at every inch graduation of the rule.

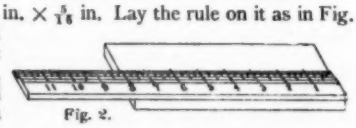


Fig. 2.

Hold the try-square as in Fig. 3, using the left forefinger to press the blade firmly to the face of the board while the thumb and remaining fingers hold the beam firmly against its edge. Place the point of the pencil in one of the points which it has made on the board, carefully move the try-square against it, raise the pencil and with it draw a fine line across the board close to the blade of the try-square as in Fig. 3.

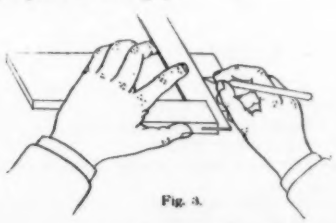


Fig. 3.

Fig. 4.

In doing this the right hand should grasp the pencil as though writing with it, and the pencil should incline to the right just enough to bring the left side of its cone of sharpening vertical as in Fig. 4, which is a front view of the pencil, try-square blade, and board.

Turn the board so as to bring its front edge uppermost and in the same manner draw a line across that edge. Repeat this process on the second side, and lastly on the second edge when a line is squared entirely around the board and should meet its starting point as in Fig. 5.

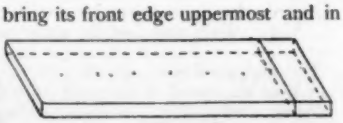


Fig. 5.

Square lines around the board through the other points. The effort of the pupil must not be to fill the board with lines, however, but to make perfect lines.

PROBLEM II. USE OF TRY-SQUARE WITH KNIFE.

Lay the rule on the board again as in Fig. 2, and with a sharp knife point, operating as in the measurement lesson, make impressions in the wood at half inches.

Use the knife as the pencil was used in Fig. 3, and square lines around the board passing through these half inch points. The knife, like the pencil, must be inclined to the right, just enough only to allow its point to cut the wood close to the try-square blade. The knife blade must be turned as in the plan view A, Fig. 6. If it is turned too much to the right as at B, it will move away from the try-square blade in the direction of the dotted lines. If turned too much to the left as at C, it is liable to be dulled as it slides along the try-square blade, and there is danger of its pushing the try-square blade out of place, unless the grasp of the left hand is very firm. This same danger of the try-square slipping is imminent, if at any time the right hand presses the knife too hard against square.

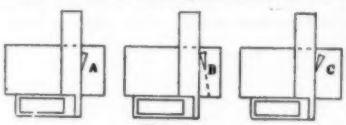


Fig. 6.

In Problem I., instructions were given to draw the pencil but once in making any given line. This is to avoid wearing away the pencil and blurring the line. The knife on the contrary needs to be drawn twice, first lightly to locate the line and second heavier to deepen it, as each line should be deep enough to be seen when held at arm's length or should easily arrest the finger nail when drawn across it. After squaring any given line around the board, rest a few seconds before commencing another. Otherwise the muscles will tire and success be impossible. A board filled with pencil lines at every inch, and knife lines at every half inch, will appear as in Fig. 7.

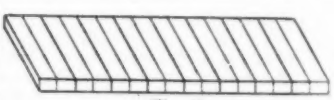


Fig. 7.

If success is not yet attained, practice the making of lines at every $\frac{1}{4}$ in. and if necessary at every $\frac{1}{8}$ in.

PROBLEM III. USE OF GAUGE AND TRY-SQUARE COMBINED.

Take a board 4 in. × 2 in. × $\frac{5}{16}$ in. As in measurement place six knife points $\frac{1}{8}$ in. apart and $\frac{1}{8}$ in. from each end as in Fig. 8.

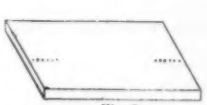


Fig. 8.

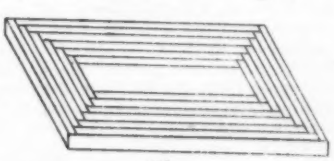


Fig. 9.

Square knife lines through the two extreme points; set the gauge $\frac{1}{8}$ in. and gauge between them. Square knife lines through the second points from each end; set the gauge $\frac{1}{8}$ in. and gauge between them, and so proceed as in Fig. 9. Rapid workmen may draw diagonals on the opposite side of the board, and between them gauge lines $\frac{1}{8}$ in. apart and square lines $\frac{1}{8}$ in. apart, as in Fig. 10.

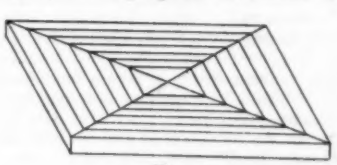


Fig. 10.

PROBLEM IV. USE OF BEVEL.

In making lines other than at right angles to the edge of a board an adjustable square or bevel is needed, as in Fig. 11. It is held and used the same as the try-square.

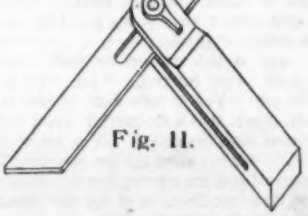


Fig. 11.

Prepare a board as in Fig. 2, and through each point, with the

bevel set at any chosen angle, draw pencil lines on one side of the board. Carry each line around, similar to Problem I. squaring across the edges and beveling across the opposite side. The work will appear as in Fig. 12.

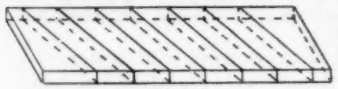


Fig. 12.

PROBLEM V. USE OF BEVEL WITH KNIFE.

Place knife points on the board at half inches and cut beveled lines through them carrying them around the board as above. Repeat at ¼ inches if necessary.

PROBLEM VI.

Let rapid workmen take a new board and draw lines around it using the bevel on both sides and both edges. The work will appear as in Fig. 13.

It will be a sufficient register of a pupil's attainment to inspect the work represented by 9, and mark 1 off from 100 for every crooked line and for every line that crosses another.

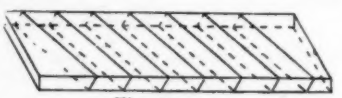


Fig. 13.

Reading and Elementary Literature.

By C. H. McGrew, M. Ph., San Jose, Cal.

(Given before a Teachers' Institute with a class of children in Fourth Reader.)

How many of the class have read *The Barefoot Boy?* Very well, and how many of you found it interesting? And why was it interesting to you, Charlie? "Because I have lived in the country and used to go barefoot myself." Mary. "Because the piece says so much about things we have all seen." Very well. Charlie, you and Mary may each copy the picture of the Barefoot Boy on the board from your books. The rest of the class may read silently the first stanza.

Now let us analyze its thought. George, who is the "little man"? Yes, why does the poet call the barefoot boy a little man? "Because he will soon be a man." Helen. "Because he acts like a man." Very good. Emma, what is meant by the "cheek of tan"? "Yes, it is made brown by the sun." James, what does the poet mean by the "sunshine on thy face"? You think he "means the sunlight?" Helen. "I think he means smiles." Nellie. "I think he means to look glad and happy." Fred, explain what is meant by "thy torn brim's jaunty grace." Yes, "his hat brim was torn," but what is meant by "jaunty grace"? "His hat was ragged." Yes, you said so before; but what is meant by "grace"? "To be good." Sometimes. Nellie. "I think it means to be natural and easy." Now, what is meant by "jaunty"? Emma. "I think it means rude." George. "I think it means ragged." James, you may look it up in the dictionary. Nellie. "I think it must mean flapping up and down." Yes, that is pretty near it. James may read the meaning. "Airy, showy, fluttering." Yes, it means flapping, fluttering, familiar. And "thy torn brim's jaunty grace" means the free, easy, and fluttering manner of his hat. Helen, what is meant by "I was once a barefoot boy"? "Whittier was once a barefoot boy." What is Whittier now? "An old man." Yes; how long ago was he a barefoot boy? James, do you know of any one else who was a barefoot boy at the same time?" Yes, "Lincoln." Fred. "I think Charles Summer was." Emma. "The poet Holmes." George, does the poet express any love and sympathy for the barefoot boy? Yes, he says, "from my heart I give thee joy."

Now you may all read silently the second stanza. Charlie, what does the poet mean by "laughing day"? "Bright, sunshiny day." Helen. "Cheerful day." Mary, what is meant by "health that mocks the doctors' rules"? "I think it means to make fun of the doctors rules." Why? "Because the boy is not sick." Has the barefoot boy any need of the doctors' medicine and rules? "No, he has too good health." James, what does the simple life of the barefoot boy teach us? Yes, "how to be strong and healthy." Helen, what does the barefoot boy learn of the bee? Yes, "where and how it gathers honey." Nellie what about the flowers and birds? "He learns where they grow and live." How does the tortoise bear his shell? "It bears it on its back and it has one on its under side." Yes, it has one on its belly too. Fred, tell us how the woodchuck digs his cell. "He digs it with his bill." Are you quite sure? "Yes, I saw him in the tree." Yes, but that is not a woodchuck, it is a woodpecker you saw. Mary. "He digs it in the ground with his claws." Yes, by what other name is this animal called? "It is called the ground-hog."

To-morrow each of you may bring me the story of the first two stanzas of "The Barefoot Boy," and for our lesson we will practice reading the poem aloud in the class.

The objects of such lessons are:

1. *To secure a comprehension of the thought.*
2. *To stimulate further thinking in children.*
3. *To cultivate the powers of conversation and both written and oral expression of the thought.*
4. *To acquire the habit of reading critically and masterly.*

The Structure of the Sentence.

By Florence Roach, Principal Polk School, Washington, D. C.

In the teaching of pure English in the common schools, the teacher's first and best efforts should be placed upon the structure of the sentence. Many qualities of pure style, such as clearness, correctness, unity, and harmony of expression, result from logical and condensed arrangement of thought. The study of style may be dovetailed with that of structure by a systematic study of model sentences from the masters, Irving, Hawthorne, Thackeray, Macaulay, DeQuincy, and others.

The study of the *rank* of elements should precede that of *form*. The pupil composes a sentence describing the *position* and "occupation" of a child in a picture; he considers first whether the thoughts are *equal* in rank, or of unequal importance. Whether or not he shall express the thoughts in the *form* of a word, phrase, or clause is of secondary importance. Therefore we should subordinate form to rank in teaching elements.

Right here it is suggested that punctuation be dovetailed with the work on sentences. The mark required, comma or semicolon, depends directly on the *structure* of the sentence. If, for instance, the pupil, for the sake of variety, decides to invert his sentence, it is clearly seen that the introductory dependent element is not restrictive; hence it must be set off by a comma as in the reproduction of, "In the bosom of one of those spacious coves which indent the eastern shore of the Hudson, there lies a small market-town or rural port."

The *parts* of the sentence should be read or dictated so that the pupil may image the elements before any test work upon the board is given. In his composition work later, he will picture the relations of the parts; therefore it is best to present the *sentence* work in the same manner.

The *adjustment* of elements is fastened securely by the selection of the proper *connective*. The study of *connectives* follows that of structure, because the selection depends upon the rank and significance of the thought; as, "The steamer arrived,—my brother did not come." The thoughts here are equal in importance, therefore the connective *must* be co-ordinate; they are dissimilar ideas, hence the conjunction is adversative, as *but* or *yet*. The careful selection of the connective shows at once the cultivation of the writer. Its omission renders the language stilted and illogical. Its too great use shows inanition and lack of energy.

The study of structure is the basis of composition, and should be applied in all recitations. If the pupil co-ordinates habitually by using "and" in the geography lesson, he should be *trained* to subordinate the minor thoughts.

There should be no subordination of co-ordinate facts simply to force the use of certain connectives such as *who, which, whose*, etc. Such work shows great lack of culture on the part of the teacher.

Experience shows that the use of the subordinate thought requires the most drill.

Ough!

The ploughboy whistled behind his plough,
For his lungs were sound and he had no cough;
He guided his team with a pliant bough,
And watered it well by the wayside trough.

The toil was hard for the land was rough—
It lay on the shores of an Irish lough—
But his well-fed team was stout and tough,
And he plied his bough to flank and hough.

He toiled all day and the crow and chough
Flew around his head though he oft cried "Shough!'
But his plough at eve struck a hidden sough
With a force that sent the share clear through.

The frightened team ran off with the plough,
With the speed of the wind from the ploughboy, though
He shouted "Woa!" and into a slough
It plunged, where the mud was soft as dough.

—*Selected.*

Supplementary.

The Story of Baldur.

By LIZZIE HADLEY, Lowell, Mass.

A NORSE LEGEND.

A great many years ago, some fathers and mothers with their little boys and girls lived far up in the north, in a land where there is a great deal of ice and snow.

There were no schools for the children, no books for them to study, and even the grown up fathers and mothers couldn't read, and were not as wise as little boys and girls are now.

They thought there were curious beings, whom they called gods, all around them; and when anything happened that they didn't understand, they said it was done by the gods, and when anything *unpleasant* happened, they said the gods were angry.

So, as you may suppose, they didn't lead very happy lives, for they were always afraid of offending their gods. I think you will like to hear the story they tell of Baldur, who was the son of Odin, the wisest of all the gods.

Baldur was the god of summer, and so good and merry that every one loved him. Hodur, his brother, was the blind god of the long, cold winter. The two brothers were not at all alike, but they loved each other dearly and never quarreled. So they lived happily for many years. But one morning Baldur awoke feeling very unhappy, for he had dreamed something terrible was to happen to him. All that day he was so sad that his mother knew something troubled him and she begged him to tell her what it was.

At last he told her his dream, and she was so frightened that she went at once and told Odin.

Odin was as sorry as she and Baldur had been, for he knew that when the gods dreamed of evil, something sad would surely happen to them. So he saddled his horse, Sleipner, and rode to the Valley of Death. Now, as Sleipner had twice as many feet as a common horse, he could go twice as fast, and he carried Odin as swift as the wind. When they came to the gateway, a great dog came out to meet them, barking, growling, and showing his sharp teeth.

I don't know whether this frightened Odin or not. If it did, he was so anxious to know about his dear son that he never thought of turning back, but at once began to sing a sweet song. This charmed the fierce dog, so that it allowed Odin to go through the gateway.

As he rode on he saw all around him beautiful jewels, fine clothes, soft beds, and nice things to eat, but he saw no one to ask who these thing were for. At last he came to a little hut where sat an old woman spinning. Odin stopped before the hut and sang a wonderful song that made the old woman come to the door. She looked cross at being disturbed and asked what was wanted of her. "Tell me," said Odin, for whom these soft beds and fine clothes are prepared."

"They are all for Baldur," said the old woman. "His brother Hodur, will soon send him to the Valley of Death." When Odin heard this, he rode home feeling very sorrowful, for he knew his dear son must die.

Baldur's mother didn't know where Odin had been, but she was so unhappy that she could neither rest nor sleep, and at last she started out to find every living and every lifeless thing on the earth and ask it not to harm Baldur. They were all willing to promise this, for everything loved Baldur, and his mother went home feeling quite happy, for she thought her son was safe. When the people heard this they were all so happy that they thought it would be a fine thing to have a new play to amuse themselves, and they often persuaded Baldur to go out in the fields with them and stand there, while they threw their shining lances, sticks, and stones, and shot arrows at him. We should think this a queer kind of a play, but the gods enjoyed it and laughed to see how everything flew far from Baldur.

Not very far from them was a wicked, mischievous god, called Loki, who did not like to see people happy. When Loki saw how everything honored Baldur, he was angry and tried to find something that had not promised not to hurt him. But though he looked a long time he could not find anything. So he dressed himself in fine clothes and made himself look like a pretty young girl, and went to see Baldur's mother. He found her spinning, and, as she felt so safe and happy about Baldur, she was glad to talk about him, and to tell how willingly everything had promised not to hurt him. "Did everything promise?" asked wicked Loki. "All but one little branch of mistletoe that was so weak and small I knew it couldn't harm anyone," said Baldur's mother. Then Loki went away and made an arrow pointed with mistletoe, and the next time the people played their new game he gave the arrow to Hodur, and told him to take part in the play, and let the people see that his arrow wouldn't touch anyone as wise and good as Baldur, and, as Hodur was blind, he aimed the arrow for him, and helped him send it flying through the air. As the mistletoe had never promised not to hurt Baldur, it went straight to its mark and he fell dead on the ground. Then the birds stopped singing, and flew far away, the flowers died, and the leaves fell from the trees, and even the sun hid his face.

Everything mourned for Baldur, the good. The gods carried his body to the seashore, and placed it on his great ship, "Ringhorn." When Nanna, his wife, saw them do this, she fell dead at the feet of Baldur's mother, and the gods laid her on the deck of the ship beside her husband. Then they pushed the great ship into the deep water and set fire to it.

They watched it till it was all burned and then went home feeling very sorrowful because Baldur and his dear Nanna had gone to the halls of Death.

This is the pretty story that was often told to the little Norse children so many, many hundred years ago, and I suppose they thought it was all true.

Perhaps the fathers and mothers who told the story meant that Baldur was the summer, and when Hodur, the winter, comes, he kills him with the cold, and the leaves and flowers die, and the little birds fly to the sunny south.

"Boys Will Be Boys."

(Recitation for a boy in third year.)

"Boys will be boys." We resent the old saying,
Current with men;
Let it be heard, in excuse for our straying,
Never again!
Ours is a hope that is higher and clearer,
Ours is a purpose far brighter and dearer,
Ours is an aim that should silence the jeerer:
We will be men!

"Boys will be boys," is an unworthy slander:
Boys will be men!
The spirit of Philip, in young Alexander,
Kindles again.
As the years of our youth fly swiftly away,
As brightens about us the light of life's day,
As the glory of manhood dawns on us, we say:
We will be men!

When "Boys will be boys" you exclaim with a wink,
Answer us, men!
How old are those "boys"? Is their age do you think
Fifty or ten?
It may be the boys with whom you used to go
Considered wild oats not unpleasant to sow;
But how looks the harvest you hoped wouldn't grow,
Now you are men?

"Boys will be boys?" Yes! if boys may be pure,
Models for men;
If their thoughts may be modest, their truthfulness sure,
Say it again!
If boys will be boys such as boys ought to be—
Boys full of sweet-minded, light-hearted glee—
Let boys be boys, brave, loving, and free,
Till they are men!

—*Harlan H. Ballard.*

Little Helpers.

(Recitation for a little girl in second year.)

Washing and wiping the dishes,
Bringing in wood from the shed,
Ironing, sweeping and dusting,
Trying to make well our bed,
Taking good care of the baby,
Watching her lest she might fall,
We little children are busy;
For there is work for us all.

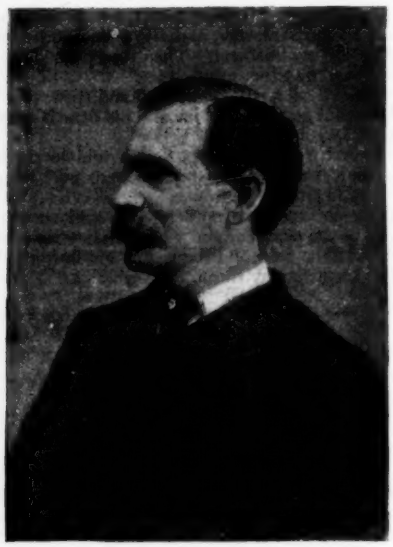
Reading the paper for grandma,
Who sits by the stove busy knitting,
Setting the table for supper,
Or on errands fast we're flitting.
Driving the cows to the pasture,
Feeding the horse in the stall,
We little children are busy—
Yes, there is work for us all.

—*Fannie L. Fancher.*

Look for goodness, look for gladness,
You will meet them all the while;
If you bring a smiling visage
To the glass, you meet a smile.

—*Alice Carey.*

The Educational Field.



Charles Jacobus.

Prof. Jacobus was born at Romulus, N. Y., and spent his boyhood on a farm. Fitting for college at Ovid (N. Y.), he entered Hobart college at Geneva, in 1860, and graduated at the head of his class in 1864. During his college course he excelled in mathematics and also took a prize in Latin composition. His first experience in teaching was at Naples, N. Y., where he made a good record as principal, being distinguished for his thorough work. From there he went to Kenwood, as principal of a boarding-school for boys. His next change was at Glenwood institute, Matawan, N. J., where he was principal for 11 years, and won the esteem of the community as well as forming close friendships. In 1885 he was appointed principal of the high school at New Brunswick, N. J., and superintendent of public schools.

As a teacher he believes in the harmonious cultivation of the head, heart, and hand, and has been progressive as well as thorough. He was quickly recognized among educational circles in New Jersey, and in 1886, was chosen president of the New Jersey teachers' association.

He is a man of industry, great force of character, and withal a genial manner and power of making friends.

Mr. Jacobus is at present principal of the high school at Springfield, Mass. He has been very successful in this position and has already taken high rank among the high school men of New England.

The University of Indiana has arranged thirteen courses of study in its University Extension plan for this year and next. This includes the natural sciences, modern languages, rhetoric and oratory, physics, law, and pedagogics. The last course is under the care of Prof. R. G. Boone, the author of the well-known History of Education of the United States. The expense of each course of lectures is ten dollars with the personal expenses of the lecturer. It looks as though this University Extension movement is to prove a fitting supplement to the reading circle movement, so general a few years ago.

The schools of Decatur, Ill., send out an interesting sheet, "The Public Schools," containing a synopsis of their "Rules" and "Course of Study." The latter is full of indications of thinking in progressive lines and keeping abreast with the times. Among the "Rules" is the following: Section 49. "No teacher, janitor, or scholar, shall use tobacco about the school buildings." This is practical teaching in "Stimulants and Narcotics."

At a late meeting of the trustees of Hebrew institute, Judge Isaac said that, at the close of a presidency of ten years, he recalled the fact that in 1881 there was $10,000 in the institute treasury, a membership of 700, and an attendance at the schools of 1,184 pupils. "To-day," he added, "our resources exceed $60,000, in addition to our interest is the new Hebrew institute. We have 1,321 members and there are 3,017 pupils on the rolls."

Treasurer Newman Cowen reported that the receipts for the past year were $14,500, including $10,000 from members' fees and $2,000 from gifts. The disbursements amounted to $16,310, including $5,000 for teachers' salaries.

Vice-President Hermann reported that of the 3,017 in the care of the institute there were in the religious department 2,579; in the dress-making classes, 29; in the sewing classes, 150; in the necktie classes, 24; in the kindergartens, 190, and in the technical department, 45. There were in all 43 classes and 32 teachers.

The course of study in the Riverside (Cal.) schools takes up the subject "man" (as proposed under "Self" in THE SCHOOL JOURNAL), and discusses alcohol, tobacco, care of skin, nails, hair, soap, bathing, feet, hands, hygiene, etc. That course of study is a remarkable one.

Ex-Supt. George Howland will be doing a better work than superintending the schools of Chicago if he rouses up the teachers in other places as he did in Dayton when he spoke on "Our Calling." Go on, go on, Mr. Howland! It is the plea THE JOURNAL has made for years—only we have added to the "higher and broader scholarship" you ask for, a demand for professional knowledge and skill.

In the report of Supt. Collins, of the Springfield (Ill.) schools, it appears that manual training was begun, and "will soon become an important part of the educational work of the schools." Here will be a good place for Mr. Geo. P. Brown, the esteemed editor of the *Public School*, to spend some of his leisure time. The experiment of manual training is going to be made in every school in America.

The new University Extension Department at Albany sends out a plan of work and invites suggestions and criticisms. It will embrace an information bureau to answer, either personally or by correspondence, questions of all kinds pertaining to any phase of extension work. An extension library applicable to the work, including all languages, will be accessible by duplication to interested workers who are unable to come to Albany. All publications descriptive of the work will be sent free to applicants. There will also be desirable extension teachers who will give lectures, others who will do class work, and still others who will give the needed instruction by correspondence. A handbook fully explaining the system as used in the 341 academies can be had free on application.

Col. John M. Wilson, superintendent of the Military academy, in his recent annual report recommended a change in the method of appointing cadets. He advised that candidates should report on the first of April for physical examination to some medical officer of the army near their homes, who should decide upon their fitness in that respect. Then they should be examined in studies by members of the Academic board in various parts of the country for the purpose.

The pupils of the high school at Tatham, Mass., solicited of a farmer the privilege of husking his corn; then went over fifty strong, both sexes, and had a jolly time. All this is wrong; they should have got together and solved problems in algebra; no exercise of the muscles allowed, only brain work.

The teachers' great bazar, held in Philadelphia in the month of December, has been a success, raising about $60,000 for the Teachers' Annuity and Aid Association. This organization went into active operation in 1891. It is similar in plan to those adopted in New York and Boston. The active members pay an assessment of 2 per cent. of their salaries and are entitled to receive in return, after thirty-five years of service in the public schools of Philadelphia, a pension, amounting to 60 per cent. of their salaries at the time of their retirement. In addition, this association will assist all teachers who break down from ill-health, at any time during their membership.

A handsome souvenir of the bazar enterprize has been issued. It is a pamphlet of 61 pages, (7x10 in.) and contains fine engravings of the public school buildings in Philadelphia, and the prominent early educators in the public schools of the city. It also contains a brief resume of the history of education in that city.

The teachers in Paducah, Ky., hold systematized Teachers' Meetings, in which papers are read and discussed that show the teachers to be wide awake. They are studying "Tate's Philosophy of Education," and a "lesson" in this is a part of the regular teachers' meeting. Superintendent McBroom says: "The public school sentiment is growing in Paducah." It always grows where teachers are alive to the needs of the work of teaching.

A course of study for the district schools of Missouri is laid upon our desk. This "course is a pamphlet of sixty-four pages, and has been prepared by a committee of six appointed by the State Teachers' association. The first object of this separate course of study is to classify the country schools and to induce teachers

o give greater attention to the elements of the common branches. A daily program is given and abundant explanation concerning its adaptation to different schools. This carefully planned course must be of great service to the district schools.

State Supt. A. S. Draper with his accustomed energy and readiness to aid the National Educational Association to have a good meeting at Saratoga July 12-15, 1892, has issued a stirring circular, asking all hands to aid in the matter. It is a good sign when men like Mr. Draper give their minds to the subject of education.

Our Public Schools is the title of a four-page sheet issued in Kansas City, Mo. It struck us most favorably and familiarly, we may say, somehow; on further examining, the reason was plain—nearly two columns were taken from THE SCHOOL JOURNAL without credit. That is not a good way to begin. We note that the paper is to be used for supplemental reading; this is rather funny. There is a heavy onslaught on the McKinley tariff bill for the third grade pupil to wrestle with. The fourth grade have an article on what to do with paupers and criminals. We don't believe in that kind of paper; but if it is to be published the editors will please credit what they take from THE SCHOOL JOURNAL.

The American Institute of Civics received its charter from the United States government in 1887. It is composed of thirty-three trustees chosen for one, two, and three years who elect their own successors. The president and faculty include the names of noted educators, and there are corresponding members of its faculty in 180 colleges who co-operate in the promotion of its purposes in every state and territory. It has, also, several subdivisions into departments, viz.: *School work, College and Professional school, The Press, Popular work, Business school,* and a department of *Legislation.* The sum of $30,000 has been pledged for the establishment of a National School or department devoted to the study of republican institutions; the school to be connected with a university of the highest standing and to be related to the Institute of Civics. A National Council of Institute members will be held in Saratoga in June next.

A colored teacher in Arkansas, Mr. W. H. Gray, writes that he owns Parker's Talks on Teaching, Hart's In the School Room, Allen's Mind Studies, Froebel's Kindergarten, Hailmann's Pedagogy, and Quick's Educational Reformers, and is thinking of buying some more. This is only referred to, to show that he seems to be solving the "race question" for himself pretty effectually. There are a few white teachers in Arkansas that are not owners of any works on education. This man wants to go to college if he can.

The Buffalo Educational Association is composed of the citizens (not of teachers exclusively as is usual) and they want light; they have sent for Dr. and Mrs. Hailmann to give them light on the kindergarten. Does it ever occur to teachers in cities that they should expound education to the people? Do they not owe a duty in this respect? What are *you* doing, my friend, to cause educational truth to abound in your vicinity?

"Tommy," said a youngster's mother, "there is a great big blot on your copy book."

"No, mamma, you're mistaken. That's only a period. Our teacher is awfully near-sighted."

Supt. Alex. E. Frye, of San Bernardino, Cal., has recently issued a little pamphlet entitled "Mind Charts." The object of these charts (in the words of the author) is "to aid teachers to study the minds of their pupils, to encourage them to teach for development, to establish a basis of promotion in a record of individual power, and thus to systematize the work now being done by progressive teachers everywhere."

There are three of these charts: I. Primary; II. Middle; III. High. They are tastefully and systematically arranged to record the standing of pupils solely *on the basis of individual power*, by these figures: 1, good; 2, fair; 3, poor. In the primary chart the *name, temperament, constitution,* and *sense defects* of the individual pupil are first recorded; next his power to *perceive, image,* and *retain* (color, outline, form, number, location, space, rhythm, pitch); next follows *Morals* and *Habits* (humane, truthful, polite, punctual, tidy, obedient, attentive, careful, persistent); next *Expression* (make, model, paint, draw, read, describe, pronounce, write, spell, sing, play). Under the last term, *Knowledge:* (Record of this element of power is made in the course of study.) A few devices are suggested under each term to explain its meaning to the teacher, and to suggest means to test the power of the pupil. The charts arranged for grammar and high schools are on the same plan, but covering a wider range of text-book study.

Prof. Frye says of the results of this system in his own schools, "It is revolutionizing our teaching here. It sets an ideal."

Twenty-five flags have been recently presented to the public schools in Utah, by the Patriotic Sons of America. The leading citizens attended the public exercises which took place in the Tabernacle. This building is being frequently used now for public gatherings. The influence of successful public schools will open doors and arouse a unity of feeling anywhere.

On Dec. 26, at Trenton was laid the corner stone of the Trenton Battle Monument. It will be erected on the very spot where the little Continental Army, in '76, gained an important victory over the invading Hessians. Of the $60,000 required for this monument, the legislature of New Jersey appropriated $15,000 and Congress $30,000. It will be a Roman Doric column 135 feet high. Gov. Abbett delivered the address at the public ceremonies of the laying of the stone. Among other things, he said:

"To New Jersey, history will assign the glory of being the great battle ground of the war of the Revolution. On the soil where this monument will stand the first real victory of the war was gained. Here Washington risked all. Greene and Sullivan led the irresistible forces of the American army, and in a brief hour success came to what was then almost a hopeless cause. This was really the most important victory of the American army, for it is almost certain that if Washington had been defeated at this time utter despair would have followed. It was the first of a series of victories which ended in the surrender of Cornwallis at Yorktown. One week after Trenton's battle Washington again defeated three of the best regiments of the British line at Princeton. Again, on that sultry summer day in 1778, with weary, ill-clad men, poorly armed but full of courage, he gave battle in the open field against well-disciplined British forces, and again and again repulsed their attack. By his bravery and the valor of his troops he changed an unsuccessful morning to a glorious victory in the afternoon, and in the evening he camped upon the battlefield."

The gavel used by the governor on this occasion was made from timber from Commodore Perry's flagship.

The twelfth annual meeting of the Maine Pedagogical Society is announced to be held Dec. 31, at Portland.

Prin. H. J. Tatterson, of Biddeford, will talk of the "Need of an Ungraded School in Cities;" Principal Wood, of East Corinth, will answer the question, "What is the Matter With the Teachers of English Grammar in Maine?" Principal Mitchell, of Saco, will discuss "The School Savings Bank." The question, "Shall we Attend the Saratoga Meeting?" will come up for general discussion. Miss Lucy Wheelock, of Chauncy Hall, Boston, will give one of her inspiring "Talks to Primary Teachers."

I. O. Winslow, of St. Albans, will propound the question, "Shall the Teachers of Maine Encourage the Study of the Science of Agriculture?" "Physical Training" will be discussed by experts and illustrated by twelve young ladies from Brunswick. Supt. Aldrich from Quincy, Mass., will present "Methods of Arithmetic." State Superintendent Luce will bring up the question of the Maine "Exhibit for the Columbian Exposition."

The program sounds most promising and there will no doubt be an excellent meeting.

The city teachers of Riverside (Cal.) hold monthly institutes, and their circulars show the subjects for discussion to be along progressive lines. A series of talks on "History of Education" is one feature of the regular gatherings. Among other subjects are "The Purpose of the Recitation," by Supt. Will S. Monroe, Pasadena; "The Foundations of our Business" and "The Structure and Functions of the Nervous System," by Supt. C. H. Keller of Riverside.

The railroad accident at Hastings-on-the-Hudson made a sad Christmas for the friends of two teachers. Among the killed were Miss Elizabeth Van Arsdale, a teacher in the 19th ward of this city and prominent in musical circles, and Miss Lizzie Ford, a teacher in the Maujer street grammar school, Brooklyn. The latter was on her way to visit relatives at Medina, N. Y.

We hope THE SCHOOL JOURNAL will meet with the success it so justly deserves.

L. R. KLEMM.
Bureau of Education, Washington, D. C.

Missouri.

A committee of ten educators appointed by the World's fair commission for Missouri has prepared a plan of exhibit, printed it in circular form and sent it out to all the leading educators of the state. It has also been printed in the *Missouri School Journal*, published By H. A. Gass, Jefferson City, Mo.

State Supt. Wolfe is chairman of this educational committee. The other members are President Jesse, of the State university; Prof. Fleet of the Mexico military school; City Superintendents Long, Greenwood, Shannon, McCartney, and Neeley of the St. Louis, Kansas City, Joplin, Hannibal, and St. Joseph schools; President Norton of the State normal at Cape Girardeau; and Prof. Robbins of the Central business college, Sedalia.

State Supt. Wolfe has recently had prepared a District Institute course of study in the higher branches, to be used in voluntary district institutes to be held at about half a dozen leading educational centers during the coming summer. These have been sent to teachers holding first grade county certificates in the state and to all leading educators.

State Supt. Wolfe assisted by a large number of Missouri's best teachers has recently prepared a choice list of books for district libraries. This list has been published by the *Missouri School Journal*; also Library day (Nov. 27), appointed by the state superintendent, has been largely observed, and it has been estimated that ten or fifteen thousand dollars has been contributed for libraries.

Correspondence.

In Barnes' Brief History of the United States, page 11, appears the following foot note :—

"Many now hold that all the aboriginal inhabitants of this country were of the same race ; and that the agriculture, pottery, and other arts of the Mound Builders, as well as of the Indians, came from the superior civilization of Central America and Mexico, illustrating what is termed 'the northern drift of civilization' on this continent."

Through THE JOURNAL please answer the following :

1. What is "the northern drift of civilization" on this continent?"

2. Is there any tradition, or was there any, among any of the aboriginal tribes, of a former unity, or of common descent?

3 If no tradition exists, how do we account for its loss, since the tradition of the common percentage of man was the property of all the civilizations of Asia and Africa?

4. Can we trace any connection between the serpent mound in Ohio and similar works in Scotland and Asia, and what was their supposed use? E. L. B.

Texas.

1. The term implies a progress to the northward in pre-historic times from a civilized southward center.

2. Not that may be considered authoritative, even as traditions go.

3. The fact that the common parentage of man was the tradition of all the civilization of Asia and Africa, must not be taken too hastily as conclusive proof of such common parentage. The fact that the American Indian offers no physical or mental trait to warrant the belief in a foreign origin would make us lean toward the thought that man originated in perhaps several centers.

4. None; except in similarity of sentiment expressed in similar ways by nations unrelated in type. The consensus of anthropological opinion points to mounds of this type as burial places for the dead, though some urge other uses also. A. B. G.

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1. What is the general effect of wave action along the coasts on the relative area of land and sea?

2. How do the regions deficient in moisture compare in extent with those deficient in temperature? D. L. H.

Clinch, Va.

1. Waves have a two-fold action. On parts of the coast where they comb in deep water they beat against the shore, break it down, and wash the debris into the sea. In a few instances, where they shoal before reaching the shore they pile up up sediment forming sand spits. The latter enclose lagoons which sooner or later fill up, thereby extending the coast seaward forming coast plains. The Atlantic coast plain from Cape Cod to Florida Keys is an example of this kind.

Such examples, however, are less frequent than that first mentioned. It may be said, therefore, that the tendency of waves is to decrease the size of continents and islands.

2. The *land* area deficient in moisture is greater than that deficient in temperature if we take rice as a basis, but the opposite is probably true if we take wheat and corn as a basis. The question is not sufficiently definite to answer with precision.

J. W. REDWAY.

Should processes be taught in arithmetic, without attempting to teach the reason therefor; for example, the process of finding the least common multiple and the greatest common divisor, leaving the principles involved until the pupil is farther advanced?

Which should precede, as a rule, processes or principles? S.

Kansas.

Processes (with figures) should never be taught without the reasons for them. The *reasons* for such processes with figures are nothing more nor less than the corresponding *processes with numbers*. There is no need of teaching the figure processes involved in finding the greatest common divisor and the least common multiple until the reasons for them, *i. e.*, the corresponding number processes, can be comprehended by the pupil. The finding of the greatest common divisor and least common multiple should be connected directly with division and multiplication, and the pupil's knowledge of the latter ought to give him the power of comprehending the former. The latter involves no principle not involved in the former. T. M. B.

One of my pupils read an article from a magazine in which the Copts are spoken of. Who are the Copts? E. G. REXFORD.

The Copts claim to be descendants of the real Egyptians; most of the Egyptians are Arabians—the Arabs you know overran and conquered Egypt; the language spoken is Arabian. The Copts number a half million; are mainly Christians; and claim that St. Mark preached the Gospel to them, and they were converted. The Copt language is a dead language, but is used in their church services. Many of them have become Protestants.

Catarrh often destroys the sense of smell. Hood's Sarsaparilla cures catarrh by purifying the blood.

Important Events, &c.

News Summary.

DECEMBER 21.—Emperor Francis Joseph seriously ill.—The Roumanian ministry resigned yesterday because of the failure of a government measure.

DECEMBER 22.—Anniversary of the landing of the Pilgrims celebrated.

DECEMBER 23.—Executions issued on the property of subscribers to obtain money for the world's fair.—The Pope reported to have a fainting fit and to be extremely ill.

DECEMBER 24.—Deaths from famine and disease increasing in Russia.—Twelve persons killed by an accident at Hastings on the New York Central road.

DECEMBER 25.—Riots in Mexico on account of the arrests of priests.

THE DISTURBANCES IN CHINA.

During the past few weeks there has been a serious revolt against the Pekin government in the north provinces of China. A battle took place early in the month between the rebels and the imperial army at Chaoyang. The rebels were overwhelmingly defeated and those who were captured were beheaded. It seems that the main cause of the rebellion was the increased rigor of the government of the northen provinces, the emperor wishing to present a compact front in that part of his realm against the aggressions of Russia.

In the meantime the crusade against foreigners in the Yangtse valley continues. Placards tending to increase the fury of the populace have been posted in various places. One of the pictures represents mandarins burning foreign books and approving of the beating of Europeans. Christians are accused of causing the rebellion in the north and imposing on the youth and inexperience of the emperor.

THE FAMINE IN MEXICO.

On account of drouth there is extreme suffering in the Mexican state of Coahuila. The drouth set in two years ago, and there has not been rain enough since to wet the ground. The cattle have nearly all died or become diseased, and are unfit for meat. Corn, which is the only other thing that the poor people can get has gone up to a price almost beyond their reach. Money is very scarce and the rates are high, because great quantities of silver dollars have been shipped out of the country.

THE REVOLT IN RIO GRAND DO SUL.

Brazil is having a hard time to satisfy the people of the state of Rio Grande Do Sul. They have shown in the past few weeks an undoubted desire to cut loose from the republic and form a separate government. The leaders of the independence movement have built up a party so strong that they now feel safe in defying the central authority. Disorders have occurred in various parts of the state where attempts have been made to suppress the independents. Uruguay has taken measures to prevent any invasion of her territory by either the Brazilian government troops or the forces of the insurgents.

AFFAIRS IN COREA.—Russia disclaims any intention of making Corea a protectorate. The Coreans have recently been alarmed over the reported designs of the notorious Kim-Ok-Kym, who has been plotting for his return to that country. Preparations have been made in Soul to protect the city against his proposed attack with a band of adventurous Japanese.

DEATH OF SENATOR PLUMB.—Preston B. Plumb, the senior senator from Kansas, died recently at the age of fifty-four years. Early in life he served his time at journalism, and made a brilliant record in the Kansas legislature. Serving in the war on the Union side, he rose to the rank of colonel. He was elected to the United States senate in 1877, and was known in that body for his industry, ability, and honesty.

WATCHING RUSSIA.—The English fleet has been cruising for several weeks in the vicinity of Vladivostok and of Corea. These operations are closely connected with the Russian advance on Pamir. It is believed that China is willing to cede Formosa in exchange for England's support against Russia.

GEN. BOOTH'S WORK.—During the first year Gen. Booth has spent $125,000 on the over-sea colony, and $200,000 has been spent in buying and leasing land for refuges and work-shops in London. About $200,000 has been spent on the farm colony. The match factory, knitting factory, and book-bindery have each earned profits.

SCIENCE AND INDUSTRY.

CULTIVATING A FIBER PLANT.—Sisal grass, a plant of the cactus order, growing to the height of ten or twelve feet and having leaves four or five feet long, is now being cultivated in the Bahama islands. When stripped of its vegetable matter the fibers, which are a bright silver color and strong, are cured quickly in the air and are then equal to manilla hemp for making rope and twine. This plant which until recently was thought to be worthless will vastly increase the wealth of the islands.

CANADA'S NEW CANAL.—The Canadian government will build a new canal on the north shore of the St. Lawrence river, forty miles above Montreal, in order to avoid the Cascade rapids. It will be thirteen and three-fourths miles long and will allow vessels drawing fourteen feet of water to pass. With the completion of the new Sault canal, now being built on the Canadian side, and the construction of the Cascade canal, Canada will possess an independent waterway from the head of Lake Superior to the sea board.

BRAZIL'S RAILROADS. Brazil having built roads at much expense across the bluffs that front the sea is now extending them for thousands of miles north, west, and south. One line is to extend to Cuyaba on the Paraguay one thousand miles from Rio de Janeiro. Another great system of lines, 1600 miles in length, is building from Sao Paulo to Rio Grande do Sul, along the uplands back of the coast mountain ranges. It is believed that the building of these railroads will be followed by extensive immigrations and an era of great prosperity for the public.

WIRE LATHING.—The importance of wire lathing for houses has lately been set forth. It is held that if it were used for partitions in hallways and other parts of large buildings in cities it would greatly check the progress of fire and allow the inmates time to escape.

SUNLIGHT IN THE SEA.—Clear summer sunlight is found to penetrate the Mediterranean sea to a depth of 1,200 feet, winter sunlight to only 600 feet.

CAMELS AS WORK ANIMALS.—In a certain portion of the Ural district camels are the only working cattle used, some large farms possessing a hundred camels.

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Leading Events of 1891.

CONGRESS.—During the first two months of 1891 the 51st congress passed some important measures among which was the silver bill. The congressional apportionment bill also became a law. A measure was passed to pay back to fifteen states money paid as taxes during the war, and it was also voted to subsidize steamship companies. The international copyright bill was passed. The federal election or "force" bill, owing to violent opposition, failed to pass. The 52nd congress met early in December. C. F. Crisp was elected speaker and Mr. Springer, of Illinois was made chairman of the ways and means committee. President Harrison's message stated that Germany, Italy, Austria, Denmark, and France had removed the restrictions upon the importation to those countries of American pork. Four new warships have been placed in commission during the year, and twenty-four more are building. As a result of the dispute with Italy in the early part of the year the passage of a law is recommended allowing federal courts to deal with offenses against the treaty rights of foreigners. The estimates for pensions for next year is $144,956,000, larger than it has ever been before.

THE WORLD'S FAIR.—Nearly all the states in the Union and many foreign nations have decided to take part in the fair at Chicago next year. The managers have shown commendable energy and enterprise and the fair is now an assured success.

THE INDIANS.—At the opening of the year it was decided that land in Indian territory should be opened for settlement as fast as possible, and consequently another large section was added to Oklahoma and promptly settled. Serious trouble occurred with the Indians in the Northwest, which was suppressed by U. S. troops. The Apaches of Arizona showed signs of hostility also, but there was no serious outbreak.

OTHER EVENTS IN THE U. S.—The Methodists celebrated the Wesley centenary, and the G. A. R. its twenty-fifth anniversary. The removal of the tariff on sugar caused a great reduction in the price of that article. Haiti refused to cede St. Nicholas Mole as a coaling station. President Harrison made an extensive tour of the country. Michigan decided to choose presidential electors by congressional districts. The weather bureau was transferred to the department of agriculture. Our government refused to receive the delegates of the Chilean insurgents. The *Itata* which had violated the neutrality laws, was chased and re-captured. The demand of the U. S. on account of the killing of American sailors in Santiago will probably be satisfied. The reciprocity treaty with Cuba was ratified. The steamships cut down the ocean record. Early in the spring there was a gloomy outlook for business, but owing to the extraordinary crops it revived. Gold was discovered in the Upper Yukon. Our government demanded compensation from Spain for outrages to missionaries in the Caroline islands. There was considerable talk of buying the island of St. Thomas and the annexacion of the Sandwich islands. A line of steamships to Brazil was established. The Ecumenical Methodist council, and also many meetings of scientific organizations, were held in Washington. S. B. Elkins was appointed secretary of war.

CANADA.—Our northern neighbors had an election in the spring in which the Conservatives lost heavily. The investigation of some of the government departments showed a startling amount of corruption. Later M. Chapleau, the secretary of state, resigned, and it now looks as though the Conservative government is going to pieces. The school question is also troublesome, a large portion of the Canadians wanting the state to pay for denominational schools. The reciprocity conference with the United States was postponed.

MEXICO.—As a rule, things were quiet in this country during the year. About the only disturbances were caused by the raids of an outlaw named Garza and his band near the Texas frontier. Railroad building was active and foreign capital for various enterprises flowed into the country. Several states suffered considerably from famine.

CENTRAL AMERICA.—Satisfactory progress was made on the Nicaragua canal. Several minor disturbances took place.

VENEZUELA.—The government failed to make a reciprocity with the United States. A bill of rights was passed giving personal liberty, liberty of the press, providing for primary education by the state, etc.

BRAZIL.—This country also concluded a reciprocity treaty with the United States. The great event of the year, however, was the downfall of da Fonseca, who instead of a patriot turned out to be a dishonest adventurer. Several states revolted and one of the southern states, Rio Grande do Sul, is not yet pacified.

ARGENTINA.—President Pellegrini attempted the reform of the banks of the republic.

CHILE.—Civil war began last January between Pres. Balmaceda and the Congressionalists and lasted until August, when the latter won by capturing Santiago and Valparaiso. Balmaceda, unable to escape from the country, committed suicide. The Junta then took charge of the government and in a few weeks handed it over to congress. Sinor Montt, a man of ability, was chosen president.

GREAT BRITAIN.—Gen. Booth spent considerable money on his scheme for reforming "Darkest England." It was decided to declare a close season in Bering sea, and to submit the disputed questions to arbitration. The British refused to evacuate Egypt, and warned King Leopold not to attempt to annex the Nile valley to the Congo state. British warships were sent to punish the king of Gambia and to watch the Portuguese in Mashonaland. It was decided to co-operate with Italy to keep peace in the Mediterranean. A war scare was caused by a few British officers landing on the island of Mitylene. Britain joined China in the protest against the advance of the Russians in central Asia. An English syndicate obtained a foothold in Madagascar. A British company abandoned Uganda.

FRANCE.—The visit of the Empress Frederick showed that much feeling against Germany still exists. The heavy debt of the republic caused much concern. Riots occurred during the Mayday demonstrations. France sought to annex Siam, and refused further aid to the Panama canal scheme. The evolutions of the army took place dangerously close to the German frontier.

GERMANY.—The German flag was raised along the east coast of Africa. A famine occurred in Silesia. The Dreibund, an alliance between Germany, Italy, and Austria, was extended for three years. The emperor in anticipation of war in the spring made arrangement for getting arms and ammunition from the United States. A commercial treaty was formed with Belgium.

PORTUGAL.—An insurrection against the government was promptly suppressed. The ministry resigned, and another one was formed.

SPAIN.—Several battles were fought between Spaniards and the natives of the Caroline islands. The government's reply to the U. S. amounted to a refusal to do justice to the missionaries in those islands. The cabinet resigned and another was appointed.

ITALY.—The Pope issued an encyclical dealing with social questions and defining the church's position. Toward the end of the year the government became more friendly to the United States.

SWITZERLAND.—The six hundredth anniversary of the republic was celebrated.

AUSTRIA.—An unsuccessful attempt was made to kill the emperor. The evolutions of the army was a reminder to Russia of the Austrian strength.

THE BALKAN PENINSULA.—The fact that Turkey allowed Russian vessels with soldiers on board to pass the Dardanelles seemed at one time to be the signal for war, but the incident was satisfactorily explained. Christians pillaged the houses of Hebrews in Zante. Roumania refused to receive fugitive Jews. The sultan ratified the Brussels anti-slavery convention act.

RUSSIA.—The movements of the fleet in the Black sea, the increase of the number of vessels in the Baltic, the massing of the army on the frontier and the strengthening of the fortifications, and the Russian encroachments in central Asia kept the powers in a state of constant uneasiness. The Jews were expelled under circumstances the most cruel. While nearly one-third of the population of the empire is suffering from famine the government shows the utmost indifference, and allows its agents to go on stealing and wasting the relief funds.

CHINA.—Certain societies in the empire, several months ago, began to stir up the people against foreigners. This led to the burning and sacking of missions and the intervention of several European powers and the United States for the protection of their citizens. To increase the troubles the reigning dynasty was threatened with expulsion and at the same time Russian movements on the northern frontier became alarming. A rebellion in the northern provinces was promptly suppressed and all the rebels who were captured beheaded.

INDIA.—A rebellion at Assam was crushed, and an uprising in Manipur was suppressed.

AFRICA.—The French defeated the natives at Niova and Youri in West Africa. The Boers, heeding the warnings of Great Britain, gave up the invasion of Mashonaland. France took posession of some Saharan oases.

AUSTRALASIA.—The Australasian states entered the Postal union. Women are allowed to run for parliament in New Zealand. The Parkes ministry was overthrown on a labor question. Trouble occurred in Samoa on account of dissatisfaction with the king.

RAILDOADS, CABLES, ETC.—The longest railroad ever undertaken is that the Russians are now building across Siberia. An underground railroad was completed in London. Work was began on a bridge across the Hudson river at New York. A railroad is being constructed from Winnipeg to Hudson bay, and another one from the coast to the gold fields in Mashonaland. The steamship record from Yokohama to Victoria, B. C., was broken. A French cable was laid from the West Indies to Brazil, and several plans were offered for laying cables across the Pacific.

SCIENCE, DISCOVERY, EXPLORATION, ETC.—The Mobangi river was explored. Lieut. Peary left for the Arctic regions. A party visited the great falls in Labrador. Encke's comet was discovered by observers at the Lick observatory. Mt St. Elias was visited and important observations made. Experiments in rain-making were conducted in the West and South. Improvements in appliances of war made great progress. The transit of mercury was observed.

ACCIDENT, FIRE, FLOOD, ETC.—Villages were destroyed by a flood in the Gila river, Arizona. Three U. S. vessels were wrecked in Vineyard sound, and a British ship was lost near Gibraltar with nearly all on board. Forest fires occurred in Michigan, Wisconsin, Pennsylvania, New Jersey, and other states. An earthquake and tidal wave took place near the head of the gulf of California. An artificial lake burst in the Tyrol inundating many villages. Three villages were set on fire by lightning in Austria. Three thousand lives were lost by the floods at Consuegra, Spain. The Japanese earthquake destroyed many villages and thousands of lives. During the heavy gales on the English coast many lives were lost. A violent eruption of the Mexican volcano Colima occurred. A building collapsed in New York causing the loss of many lives. In the fall and early winter the influenza was again epidemic in many countries. A large lake formed in the Colorado desert.

THE DEATH RECORD.—Among the prominent persons who have died during the year are the following: *Rulers and Other Public Men.*—Dom Pedro, ex-emperor of Brazil; King Kalakaua; Prince Bandouin, of Holland; Baron Haussman; Prince Chun, father of the Chinese emperor; Earl Granville; Charles Stewart Parnell; Dr. Windthorst, of Germany; Gen. Spinner; Hannibal Hamlin; ex-Senator MacDonald; ex-President Grevy; Senator Plumb; Henry A. P. Carter, Hawaiian minister to the U. S. *Authors, Journalists, etc.*—Dr. Schliemann; Lord Lytton; George Bancroft; Octave Feullet; Neils Wilhelm Gade, the Danish composer; James Redpath; Mr. Jones, of the N. Y. *Times*; James Russell Lowell. *Soldiers.*—Gen. W. T. Sherman; Admiral Porter; Count von Moltke; Gen. Johnstone. *Actors.*—Lawrence Barrett, Wm. J. Florence, and Emma Abbott. *Miscellaneous.*—Mgr. Preston, Bishops Gilmore and Longhlin, P. T. Barnum, and Mrs. Polk, widow of the president.

New Books.

A translation of Prof. Charles Gide's *Principles of Political Economy*, made by Edward Percy Jacobsen, formerly of University college, London, has just been issued. It is neither a primer for beginners nor so abstruse as to be incomprehensible to those of ordinary information on the subject. One prominent characteristic of the book is its impartiality. This is shown especially in his discussion of that well-worn question of free trade and protection. Unlike some writers he does not warp the facts to suit a pet theory. He gives the arguments that have been advanced on both sides so that the reader may draw his own conclusion. On the other hand he has not hesitated to express opinions on all questions in which truth seemed beyond controversy. In the four books the author treats of wealth and value, production, consumption, and distribution, in their various aspects. Those who wish to become acquainted with political science, especially students in our colleges, will greatly profit by reading this book. The introduction and notes were written by James Bonar, LL. D. (D. C. Heath & Co., Boston. $2.00.)

Rudimentary Ethics by George M. Steele, LL. D., principal of Wesleyan academy, is intended to meet the wants of academies and high schools. The design is to set forth the more essential principles of ethics in simple and familiar language, in their logical connections and with adherence to scientific forms. There are examples enough given to make the work sufficiently concrete for young people. Duties to the mind, duties to the body, the family, liberty, property, society and government, and other themes are treated with clearness and as full as is necessary in an elementary work. (Leach, Shewell, & Sanborn, Boston and New York. $1.00.)

Among the handsomest, and we doubt not the most welcome, little books of the year is *Lyrics of the Living Church*, consisting of a collection of poems that have appeared in *The Living Church* during the first ten years of its publication. These are all religious in subject or in sentiment; and being written by a great number of different persons, vary in style and merit. In the collection, therefore, every one may find something to please him. There are poems on the days and seasons of the church, the Christian virtues, on legendary and allegorical subjects, etc. The illustrations are numerous—some of them being drawings from old masters but the greater part from original designs. (A. C. McClurg & Co., Chicago. $1.50.)

A book that will be of considerable service to those who are entering upon the study of the German language is *A Short Historical Grammar of the German Language*, translated and adapted from Prof. Behaghel's "Deutsche Sprache," by Emil Trechmann, M. A. The author of this book is one of the most diligent reseachers in the field of Old German and Teutonic philology and literature. (Macmillan & Co., London and New York. $1.00.)

In Heath's Modern Language series is an *Introduction to Modern French Lyrics*, edited with notes by B. L. Bowen, Ph. D., associate professor of the Romance languages in Ohio state university. The main object of the volume is to furnish students in French with material for an introductory study of lyric poetry. It contains in Part I. the patriotic songs of the Revolution, of which the best known is the "Marseillaise," the other parts being devoted to the great song writers and to miscellaneous pieces. Most prominence is given to Victor Hugo and Beranger, but there are generous selections from Lamartine, Alfred de Musset, and Gautier. (D. C Heath & Co., Boston. 65 cents.)

Magazines.

——The January *Wide Awake* brings to its readers stories by Mollie Elliott Seawell, G. Adams, Capt. C. A. Curtis, Maria McIntosh Cox, and two bright story tellers who write under *nom de plumes*. Besides it has numerous sketches, verses, and pictures. The promise of the publishers to make the magazine more and more attractive is being fulfilled.

——An illustrated poem by Arlo Bates, "The Sorrow of Rohab," forms one of the attractive features of *Harper's Magazine* for January. In this number also appears William Dean Howells' farce "A Letter of Introduction." The story of "Aaron Burr's Conspiracy and Trial" is retold in a graphic and impartial narrative by Walter S. Drysdale. "Personal Recollections of Nathaniel Hawthorne" by a classmate will be widely read among the admirers of the great romancer. Julian Ralph writes on "Our Exposition at Chicago."

——Professor Gildersleeve, of Johns Hopkins university, was in the Confederate army and a firm believer in the cause for which it contended. In the *Atlantic Monthly* for January he states the reasons for his course, in an article entitled "The Creed of the Old South." "The Greatest Need of College Girls" is the subject of an important article. It is by Annie Payson Call.

——*Humanity and Health* is the name of a monthly issued by Mrs. E. A. Jennings, M. D., at $1.00 per year. It will include articles on the physical, mental, and moral health of mankind; and on the just and humane treatment of all persons, rich and poor, women and children.

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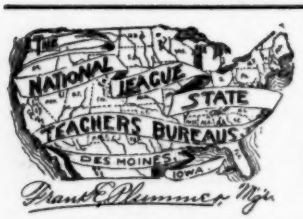

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